RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _10/516, 837_

Source: _PCT/10_

Date Processed by STIC: _12/17/04_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (**EFFECTIVE 06/05/04**):
   U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: _10/516,837_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1____Wrapped Nucleics Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

·2____Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3____Misaligned Amino Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4____Non-ASCII The submitted file was not saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**

5____Variable Length Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6____PatentIn 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**

7____Skipped Sequences (OLD RULES) Sequence(s) ____ missing. If intentional, please insert the following lines for **each** skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.

8____Skipped Sequences (NEW RULES) Sequence(s) ____ missing. If intentional, please insert the following lines for **each** skipped sequence.
<210> sequence id number
<400> sequence id number
000

9____Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10____Invalid <213> Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence

11____Use of <220> Sequence(s) ____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of Sequence Rules)

12____PatentIn 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13____Misuse of n/Xaa "n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

PCT

```
RAW SEQUENCE LISTING              DATE: 12/17/2004
PATENT APPLICATION:  US/10/516,837   TIME: 15:14:52

        Input Set : A:\BTG0008-101(144404US01).SEQ.txt
        Output Set: N:\CRF4\12172004\J516837.raw

   3 <110> APPLICANT: ISIS INNOVATION LIMITED
   4        ANDERSON, Robert Paul
   5        HILL, Adrian Vivian Sinton
   6        JEWELL, Derek Parry
   8 <120> TITLE OF INVENTION: THERAPEUTIC EPITOPES AND USES THEREOF
  10 <130> FILE REFERENCE: 142769 / P035468WO
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/516,837
C--> 13 <141> CURRENT FILING DATE: 2004-12-03
  15 <150> PRIOR APPLICATION NUMBER: GB 0212885.8
  16 <151> PRIOR FILING DATE: 2002-06-05
  18 <160> NUMBER OF SEQ ID NOS: 758
  20 <170> SOFTWARE: SeqWin99, version 1.02
  22 <210> SEQ ID NO: 1
  23 <211> LENGTH: 7
  24 <212> TYPE: PRT
  25 <213> ORGANISM: Artificial Sequence
  27 <220> FEATURE:
  28 <223> OTHER INFORMATION: (peptide)
  30 <400> SEQUENCE: 1
  31 Pro Gln Pro Glu Leu Pro Tyr
  32 1               5
  34 <210> SEQ ID NO: 2
  35 <211> LENGTH: 17
  36 <212> TYPE: PRT
  37 <213> ORGANISM: Artificial Sequence
  39 <220> FEATURE:
  40 <223> OTHER INFORMATION: (peptide)
  42 <400> SEQUENCE: 2
  43 Gln Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln Pro Gln
  44 1               5                   10                  15
  46 Ser
  49 <210> SEQ ID NO: 3
  50 <211> LENGTH: 266
  51 <212> TYPE: PRT
  52 <213> ORGANISM: Homo sapiens
  54 <400> SEQUENCE: 3
  55 Val Arg Val Pro Val Pro Gln Leu Gln Pro Gln Asn Pro Ser Gln Gln
  56 1               5                   10                  15
  58 Gln Pro Gln Glu Gln Val Pro Leu Val Gln Gln Gln Gln Phe Pro Gly
  59               20                  25                  30
  61 Gln Gln Gln Gln Phe Pro Pro Gln Gln Pro Tyr Pro Gln Pro Gln Pro
  62          35                  40                  45
  64 Phe Pro Ser Gln Gln Pro Tyr Leu Gln Leu Gln Pro Phe Pro Gln Pro
```

insufficient explanation - give source of genetic material - see item II on Error Summary Sheet

same error

pp 1-6

Does Not Comply Corrected Diskette Needed

RAW SEQUENCE LISTING   DATE: 12/17/2004
PATENT APPLICATION: US/10/516,837   TIME: 15:14:52

Input Set : A:\BTG0008-101(144404US01).SEQ.txt
Output Set: N:\CRF4\12172004\J516837.raw

```
65     50                    55                    60
67 Gln Leu Pro Tyr Pro Gln Pro Gln Ser Phe Pro Pro Gln Gln Pro Tyr
68 65                    70                    75                    80
70 Pro Gln Pro Gln Pro Gln Tyr Ser Gln Pro Gln Gln Pro Ile Ser Gln
71                    85                    90                    95
73 Gln Gln Ala Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
74          100                   105                   110
76 Gln Ile Leu Gln Gln Ile Leu Gln Gln Gln Leu Ile Pro Cys Met Asp
77          115                   120                   125
79 Val Val Leu Gln Gln His Asn Ile Ala His Ala Arg Ser Gln Val Leu
80     130                   135                   140
82 Gln Gln Ser Thr Tyr Gln Leu Leu Gln Glu Leu Cys Cys Gln His Leu
83 145                   150                   155                   160
85 Trp Gln Ile Pro Glu Gln Ser Gln Cys Gln Ala Ile His Asn Val Val
86                    165                   170                   175
88 His Ala Ile Ile Leu His Gln Gln Gln Lys Gln Gln Gln Gln Pro Ser
89          180                   185                   190
91 Ser Gln Val Ser Phe Gln Gln Pro Leu Gln Gln Tyr Pro Leu Gly Gln
92          195                   200                   205
94 Gly Ser Phe Arg Pro Ser Gln Gln Asn Pro Gln Ala Gln Gly Ser Val
95     210                   215                   220
97 Gln Pro Gln Gln Leu Pro Gln Phe Glu Glu Ile Arg Asn Leu Ala Leu
98 225                   230                   235                   240
100 Gln Thr Leu Pro Ala Met Cys Asn Val Tyr Ile Ala Pro Tyr Cys Thr
101               245                   250                   255
103 Ile Ala Pro Phe Gly Ile Phe Gly Thr Asn
104          260                   265
106 <210> SEQ ID NO: 4
107 <211> LENGTH: 7
108 <212> TYPE: PRT
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: peptide
114 <400> SEQUENCE: 4
115 Pro Gln Pro Gln Leu Pro Tyr
116 1               5
118 <210> SEQ ID NO: 5
119 <211> LENGTH: 20
120 <212> TYPE: PRT
121 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: peptide
126 <400> SEQUENCE: 5
127 Leu Gln Leu Gln Pro Phe Pro Gln Pro Gln Leu Pro Tyr Pro Gln Pro
128 1               5                   10                   15
130 Gln Ser Phe Pro
131               20
133 <210> SEQ ID NO: 6
134 <211> LENGTH: 17
```

RAW SEQUENCE LISTING   DATE: 12/17/2004
PATENT APPLICATION: US/10/516,837   TIME: 15:14:52

Input Set : A:\BTG0008-101(144404US01).SEQ.txt
Output Set: N:\CRF4\12172004\J516837.raw

```
135 <212> TYPE: PRT
136 <213> ORGANISM: Artificial Sequence
138 <220> FEATURE:
139 <223> OTHER INFORMATION: peptide
141 <400> SEQUENCE: 6
142 Glu Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln Pro Gln
143 1               5                   10                  15
145 Ser
148 <210> SEQ ID NO: 7
149 <211> LENGTH: 17
150 <212> TYPE: PRT
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: peptide
156 <400> SEQUENCE: 7
157 Gln Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln Pro Glu
158 1               5                   10                  15
160 Ser
163 <210> SEQ ID NO: 8
164 <211> LENGTH: 17
165 <212> TYPE: PRT
166 <213> ORGANISM: Artificial Sequence
168 <220> FEATURE:
169 <223> OTHER INFORMATION peptide
171 <400> SEQUENCE: 8
172 Glu Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln Pro Glu
173 1               5                   10                  15
175 Ser
178 <210> SEQ ID NO: 9
179 <211> LENGTH: 5
180 <212> TYPE: PRT
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: peptide
186 <400> SEQUENCE: 9
187 Gln Pro Gln Leu Pro
188 1               5
190 <210> SEQ ID NO: 10
191 <211> LENGTH: 17
192 <212> TYPE: PRT
193 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION peptide
198 <400> SEQUENCE: 10
199 Gln Leu Gln Pro Phe Pro Gln Pro Gln Leu Pro Tyr Pro Gln Pro Gln
200 1               5                   10                  15
202 Ser
205 <210> SEQ ID NO: 11
206 <211> LENGTH: 20
```

RAW SEQUENCE LISTING   DATE: 12/17/2004
PATENT APPLICATION: **US/10/516,837** TIME: 15:14:52

Input Set : **A:\BTG0008-101(144404US01).SEQ.txt**
Output Set: **N:\CRF4\12172004\J516837.raw**

```
207 <212> TYPE: PRT
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: peptide
213 <400> SEQUENCE: 11
214 Leu Gln Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln Pro
215 1               5                   10                  15
217 Gln Ser Phe Pro
218             20
220 <210> SEQ ID NO: 12
221 <211> LENGTH: 5
222 <212> TYPE: PRT
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: peptide
228 <400> SEQUENCE: 12
229 Pro Gln Leu Pro Tyr
230 1               5
232 <210> SEQ ID NO: 13
233 <211> LENGTH: 12
234 <212> TYPE: PRT
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: peptide
240 <400> SEQUENCE: 13
241 Gln Leu Gln Pro Phe Pro Gln Pro Glu Leu Pro Tyr
242 1               5                   10
244 <210> SEQ ID NO: 14
245 <211> LENGTH: 11
246 <212> TYPE: PRT
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: peptide
252 <400> SEQUENCE: 14
253 Pro Phe Pro Gln Pro Glu Leu Pro Tyr Pro Gln
254 1               5                   10
256 <210> SEQ ID NO: 15
257 <211> LENGTH: 14
258 <212> TYPE: PRT
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: peptide
264 <400> SEQUENCE: 15
265 Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp
266 1               5                   10
268 <210> SEQ ID NO: 16
269 <211> LENGTH: 16
270 <212> TYPE: PRT
271 <213> ORGANISM: Artificial Sequence
```

RAW SEQUENCE LISTING   DATE: 12/17/2004
PATENT APPLICATION: US/10/516,837   TIME: 15:14:52

Input Set : A:\BTG0008-101(144404US01).SEQ.txt
Output Set: N:\CRF4\12172004\J516837.raw

```
273 <220> FEATURE:
274 <223> OTHER INFORMATION: peptide
276 <400> SEQUENCE: 16
277 Ile Asp Val Trp Leu Gly Gly Leu Leu Ala Glu Asn Phe Leu Pro Tyr
278 1               5                   10                  15
281 <210> SEQ ID NO: 17
282 <211> LENGTH: 17
283 <212> TYPE: PRT
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: peptide
289 <400> SEQUENCE: 17
290 Pro Gln Pro Gln Pro Phe Pro Pro Glu Leu Pro Tyr Pro Gln Pro Gln
291 1               5                   10                  15
293 Ser
296 <210> SEQ ID NO: 18
297 <211> LENGTH: 9
298 <212> TYPE: PRT
299 <213> ORGANISM: Artificial Sequence
301 <220> FEATURE:
302 <223> OTHER INFORMATION: peptide
304 <400> SEQUENCE: 18
305 Phe Pro Gln Pro Gln Leu Pro Tyr Pro
306 1               5
308 <210> SEQ ID NO: 19
309 <211> LENGTH: 9
310 <212> TYPE: PRT
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: peptide
316 <400> SEQUENCE: 19
317 Phe Pro Gln Pro Gln Gln Pro Phe Pro
318 1               5
320 <210> SEQ ID NO: 20
321 <211> LENGTH: 9
322 <212> TYPE: PRT
323 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
326 <223> OTHER INFORMATION: peptide
328 <400> SEQUENCE: 20
329 Pro Gln Gln Pro Gln Gln Pro Phe Pro
330 1               5
332 <210> SEQ ID NO: 21
333 <211> LENGTH: 12
334 <212> TYPE: PRT
335 <213> ORGANISM: Artificial Sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: peptide
340 <400> SEQUENCE: 21
```

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 12/17/2004
PATENT APPLICATION: US/10/516,837   TIME: 15:14:53

Input Set : **A:\BTG0008-101(144404US01).SEQ.txt**
Output Set: **N:\CRF4\12172004\J516837.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:23; Xaa Pos. 1,2,3,4,5,6,7,10,11,12,13,14,15,16,17
Seq#:37; Xaa Pos. 2
Seq#:38; Xaa Pos. 2,3,4
Seq#:45; Xaa Pos. 3,5
Seq#:64; Xaa Pos. 2

VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/516,837**

DATE: 12/17/2004
TIME: 15:14:53

Input Set : **A:\BTG0008-101(144404US01).SEQ.txt**
Output Set: **N:\CRF4\12172004\J516837.raw**

```
L:12 M:270 C: Current Application Number differs, Replaced Current Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:379 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:23
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
M:341 Repeated in SeqNo=23
L:593 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:37
L:593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:613 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:38
L:613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:708 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:45
L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:955 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:64
L:955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
```